

IN THE CLAIMS:

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1. (Currently Amended) An ~~Audio~~ audio arrangement for a Delay-Sum type Beamformer that utilizes an energy transfer function for delay compensation, said arrangement comprising:

- a plurality of audio sources generating input audio signals;
- a processor operable to derive a processed audio signals from the input audio signals;
- a combiner operable to derive a combined audio signal from the processed audio signals; and
- a ~~non-measurement~~ based controller operable to control the processor in order to maximize a power measure of the combined audio signal, wherein the controller is arranged to limit a combined power gain measure of the processed audio signals to a predetermined value without measuring an energy transfer at each site where one respective audio source of the plurality of audio sources receives the input audio signals.

2. (Previously Amended) The audio processing arrangement according to claim 1, wherein the processor includes a scaling means for scaling the input audio signals with a scaling factor

E/ for obtaining the processed audio signal, said controller includes a further scaling means for deriving a plurality of scaled combined audio signals with a scaling factor corresponding to the scaling factor of the scaling means, and in that the controller is arranged for maximizing a power measure of the combined audio signal, and for limiting a combined power gain measure of the processed audio signals by minimizing a difference between the input audio signals and the scaled combined audio signals corresponding to said audio signals.

3. (Previously Amended) The audio processing arrangement according to claim 1, wherein the processor includes a plurality of adjustable filters for deriving the processed audio signal, in that the controller includes a plurality of further adjustable filters having a transfer function being the conjugate of the transfer function of the adjustable filters, said further adjustable filters being arranged for deriving from the combined audio signal filtered combined audio signals, and in that the controller is arranged for maximizing the power measure of the combined audio signal, and for restricting a combined power gain measure of the processed audio signals to a predetermined value by controlling

~~E~~ the transfer function of the adjustable filters and the further adjustable filters in order to minimize a difference measure between the input audio signals and the filtered combined audio signal corresponding to said input audio signals.

4. (Previously Amended) The audio processing arrangement according to claim 2, wherein the audio processing arrangement comprises a delay elements for compensating a delay difference of a common audio signal present in the input audio signals.

5. (Previously Amended) The audio processing arrangement according to claim 1, wherein the audio sources comprise a plurality of microphones, and in that the microphones are placed in a position such that their directionality patterns are substantially disjunct.

6. (Previously Amended) The audio processing arrangement according to claim 5, wherein the microphones are placed around a center position at angles being equal to 360 degrees divided by the number of microphones.

7. (Previously Amended) The audio processing arrangement according to claim 1, wherein the audio sources comprise a plurality of microphones being placed in a linear array.

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8. (Currently Amended) An audio signal processing arrangement for a Delay-Sum type Beamformer that utilizes an energy transfer function for delay compensation, said arrangement comprising a plurality of inputs for receiving input audio signals, processing means for deriving processed audio signals, the audio processing arrangement comprising combining means for deriving a combined audio signal from the processed audio signals, wherein the audio processing arrangement comprises a ~~non-measurement-based~~ control means for controlling the processing means in order to maximize a power measure of the combined audio signal, and in that the control means are arranged for limiting a combined power gain measure of the processed audio signals to a predetermined value without measuring an energy transfer at each site where each respective one the plurality of audio sources receives the input audio signals.

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9. (Currently Amended) An ~~Audio~~ audio signal processing arrangement according to claim 8, characterized in that the processing means comprise scaling means for scaling the input audio signals with a scaling factor for obtaining the processed audio signals, said control means comprise further scaling means for deriving a plurality of scaled combined audio signals with a scaling factor corresponding to the scaling factor of the scaling means, and in that the control means are arranged for maximizing a power measure of the combined audio signal, and for limiting a combined power gain measure of the processed audio signals by minimizing a difference between the input signals and the scaled combined audio signals corresponding to said audio signals.

10. (Currently Amended) An audio processing method for a Delay-Sum Beamformer that utilizes an energy transfer function for delay compensation, said method comprising:

receiving a plurality of input audio signals from a plurality of audio sources;

deriving processed audio signals from the input audio signals;

AMENDMENT under 37 CFR §1.113  
U.S. Appln. No. 09/196,064

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reducing reverberation by controlling the processing of  
the audio signals in order to maximize a power measure of the  
combined audio signal; and

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~~non-measurement based~~ controlling the processing for  
limiting a combined power gain measure of the processed audio  
signals to a predetermined value without measuring an energy  
transfer at each site where one respective audio source of the  
plurality of audio sources receives the input audio signals.

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